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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

ASHBURN, STEVEN L

ART UNIT

PAPER NUMBER

3714

DATE MAILED: 12/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application N .

09/483,854

Applicant(s)

KNUST ET AL.

Examiner

Steven Ashburn

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 June 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4-9 and 17-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4-9 and 17-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION***Claim Rejections - 35 USC § 103***

Claims 1, 4, 5, 8, 9 and 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schubert, U.S. Patent 6,313,871 B1 (Nov. 6, 2001) in view of Walsh, U.S. Patent 5,726,706 (Mar. 10, 1998), Helms et al., U.S. Patent 6,344,874 B1 (Feb. 5, 2002) and Fishbine et al., U.S. Patent 5,781,647 (Jul. 14, 1998).

Regarding independent claim 1: The claimed invention is a gambling tracking system is comprised of three systems usable together in combination: (i) a system directed to multiplexing cameras for monitoring gaming tables, (ii) a structure directed to gaming table containing cameras, and (iii) a system directed to gaming chip recognition.

First, regarding the features directed to multiplexed cameras, *Schubert* discloses a system for monitoring chips on a gaming table wherein video imagers (i.e. cameras) are linked through a standard computer network to allow a remote observer located at a terminal to selectively display the video images from any one of a plurality of gaming tables. *See fig. 9; col. 7:20-38*. In particular, *Schubert* discloses the following features:

- a. Central computer (50). *See fig. 1, 9*.
- b. Video multiplexer (44) coupled to a central computer (50). *See id.*
- c. Gaming table (16) associated with the video multiplexer (44). *See id.*
- d. Plurality of video imagers (27) on the gaming table (16) wherein the video imagers are coupled to the video multiplexer and each of the video imagers is directed to a predetermined wagering location on the table. *See fig. 1, 9; col. 4:15-19*.

Hence, *Schubert* teaches all the features of the claimed features directed to multiplexing cameras for monitoring activity at a gaming table.

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Second, regarding the features directed at the gaming table containing cameras, *Schubert* discloses the following features:

- a. A platform on the table above the predetermined wagering locations wherein each of the video imagers is located below the platform. *See fig. 1; col. 4:15-47*. More specifically, *Schubert* describes mounting the video imagers within a raised rail or ridge on the perimeter of the table. *See id.* Implicitly, this raised rail includes an upper surface constituting a platform wherein the internal imagers are below the platform and above the wagering locations.
- b. An arcuate wall extending between the platform and the table wherein the video imagers are positioned behind the arcuate wall. More specifically, *Schubert* describes a gaming table having a typical “arcuate” shape wherein video cameras are installed within a raised rail or ridge that may be disposed around the perimeter of the table. *See fig. 1; col. 4:25-27*. Notably, *Schubert* also describes placing imagers behind a curved, transparent wall. *See col. 4:56-5:8*.

However, *Schubert* does not describe the following features:

- a. Wall defining apertures therethrough wherein the video imagers are directed through the apertures.
- b. Light below the platform and directed to each of the wagering locations, wherein the light provides illumination projects from the arcuate wall from below the platform laterally toward the gaming location.

Regardless, these features would have been obvious to an artisan in view of the prior art below.

Walsh discloses a lighting security system in which lights and cameras are recessed within a curved fixture for illuminating and observing activity on a gaming table. *See fig. 1; col. 1:39-61*. The fixture is adaptable to the shape of a gaming table to provide a functional and decorative lighting assembly allowing unobtrusive observation of gaming patrons and thereby promote a more congenial, but

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secure gaming environment. *See id.* In particular regards to the claims, *Walsh* describes the following features:

- a. Arcuate mounting structure defining apertures therethrough wherein the video imagers are directed through the apertures. *See fig. 1, 4, 5.*
- b. Lights below the platform directed to wagering locations wherein the light projects from the arcuate mount. *See id.*
- c. The lamps moveable relative to the fixture so that they may be directed at locations. *See col. 3:57-4:6.*

Thus, it is known to mount video imagers and lights within arcuate structures having apertures therethrough in order to provide unobtrusive surveillance and lighting of gaming tables.

Furthermore, it is known in the art to use light to illuminate objects targeted by cameras to improve the brightness and contrast and thereby capture a better image of the object. For, example, *Helms* discloses that a known difficulty of using video cameras in locations with overhead lighting is the lights create undesirable shadows that result in unsatisfactory image pickup. *See col. 1:13-19.* A common solution to this problem is to provide an additional light source near the camera to illuminate the subject. *See id.* This floods the subject with light and thereby minimizes the impact of overhead or poor lighting. *See id.*

In view of *Walsh* and *Helms*, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the game table tracking system taught by *Schubert*, wherein cameras are positioned within an arcuate rail, beneath a raised platform around the perimeter of the table, to add the features of (i) apertures through the arcuate wall wherein the video imagers are directed through the apertures and (ii) lights below the platform and directed to each of the wagering locations, wherein the light provides illumination projects from the arcuate wall from below the platform laterally toward the gaming location. As suggested by *Walsh*, placing cameras within the wall behind apertures would allow

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unobtrusive observation and thereby promote a more congenial, but secure gaming environment. *See col. 1:39-61*. Furthermore, as taught by *Helms*, provide an additional light source at or near the camera to illuminate the subject minimizes the impact of overhead or poor lighting. *See col. 1:13-19*.

Third, regarding the features directed to chip recognition, *Schubert* discloses all the features of the claim determining the value of wagers in each of the wagering locations using a recognition system including an algorithm which takes into account multiple image component planes selected from the group consisting of (i) red, green, and blue (RGB), (ii) hue, saturation and lightness (i.e. HSI), (iii) particle analysis correlation; or (iv) a combination of (i), (ii) or (iii). Regardless, this feature would have been obvious to an artisan in view of the prior art discussed below. The examiner notes that the claim language only requires one method of image recognition listed in the group.

Fishbine discloses an analogous chip recognition wherein the recognition includes an algorithm which takes into account multiple image component planes consisting of RGB or HSI. *See col. 3:51-4:5:11*. In view of *Fishbine*, it would have been obvious to modify the chip recognition system for a gambling table disclosed by *Schubert*, to add the feature of recognizing chips using an algorithm which takes into account multiple image component planes consisting of RGB or HSI and thereby enhance the system by allowing it to recognize a great number of chip colors. *See col. 4:10-15*.

Consequently, when the prior art is taken as a whole by an artisan at the time of the invention, it suggests to an artisan to modify the gambling table chip recognition system disclosed by *Schubert* to add the features of (i) apertures through the arcuate wall wherein the video imagers are directed through the apertures; (ii) lights below the platform and directed to each of the wagering locations, wherein the light provides illumination projects from the arcuate wall from below the platform laterally toward the gaming location and (iii) recognizing chips using an algorithm which takes into account multiple image component planes consisting of RGB or ^{HSI}HSI. As suggested by *Walsh* and *Helms*, adding recessed camera

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and lighting allows discrete, effective recording of gambling activity. As suggested by *Fishbine*, detecting chips using multiple image component planes consisting of RGB allows a great range of chip colors to be recognized by the system.

In regards to claim 4: *Walsh* additionally teaches mounting lights within recesses of a mounting structure.

In regards to claim 5: *Schubert* additionally teaches a trigger coupled to a multiplexer to initiate operation of the system. *See fig. 9; col. 6:38-51.*

In regards to claim 8: The tracking system described by the combination of *Schubert* and *Walsh* teaches all the features of the claimed subject matter except a data input means for inputting alphanumeric data manually into the central computer. Regardless of the deficiency, the feature was known in the art at the time of the invention and would have been obvious to an artisan of ordinary skill.

Standard computer networks are notoriously well known to provide alphanumeric input devices allowing users to manually enter data into a central computer (e.g. keyboards). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the tracking system described by the combination of *Schubert* and *Walsh*, wherein remote observers selectively monitor gaming table video via a central computer, to add a alpha-numeric input device to allow users a convenient and well-understood means for observers to selectively control a central computer to display gaming table video.

In regards to claim 9: *Schubert* additionally teaches means for determining which of the wagering locations is active. *See col. 2:5-39, 4:6-19.*

In regards to claim 18, *Schubert* additionally teaches a table defining a substantially flat side and an arcuate side, wherein the table further defines a dealer location along the substantially flat side and a plurality of gamer locations along the arcuate side. *See fig. 1.*

In regards to claim 19, *Schubert* additionally teaches having each of the video imagers directed from a point adjacent to the gamer locations generally in the direction of the dealer location. *See fig. 1; col. 4:25-27.*

In regards to claim 20, the wager tracking system suggested by the combination of *Schubert* with *Walsh* and *Helms* and *Fishbine* does not explicitly describe illuminating a stack of wagering chips including the bottom chip. Regardless, in view of the prior art, this feature would have been obvious to an artisan. More specifically, *Schubert* teaches a wager tracking system having predetermined wagering locations adapted to support a stack of wagering chips including a bottom chip wherein . *See fig. 1(18).* *Helms* teaches providing an additional light source at or near the camera to illuminate the subject to floods it with light, thereby minimizing the impact of overhead or poor lighting and reduces the contrast range of the lighting to permit satisfactory imaging. *See col. 1:61-2:6.* Thus, when the prior art is taken as a whole at a time prior to the invention, the wager tracking system suggested by the combination of *Schubert* with *Walsh* and *Helms*, wherein lights illuminate locations to be capture wagers with a camera, suggests illuminating a stack of wagering chips including the bottom chip. As taught by *Helms*, providing an additional light source at or near the camera to illuminate the subject to floods it with light, thereby minimizing the impact of overhead or poor lighting and reduces the contrast range of the lighting to permit satisfactory imaging. *See col. 1:61-2:6.*

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Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Schubert* in view of *Walsh, Helms and Fishbine*, as applied to claim 1 above, in further view of Mothwurf, U.S. Patent 5,919,090 (Jul. 6, 1999).

The gaming table tracking system described by the combination of *Schubert* with *Walsh* teaches all the features of the claimed subject matter except uniquely identifying a gambler to the tracking system using a magnetic card stripe reader. Regardless of the deficiencies, the features were known in the art at the time of the invention and would have been obvious to an artisan.

Mothwurf discloses an analogous system for tracking wagering data at a gaming table. In particular, the reference describes identifying each gambler at a betting position using an electronically readable identity card and read unit at each position in order to track when and where each gambler was located. *See col. 7:28-65*. Notably, *Mothwurf* does not describe using a magnetic card stripe reader for identifying the player. Nonetheless, several types of electronically readable identity card are notoriously well known in the art including integrated circuit cards, magnetic stripe cards, and optically coded cards. Each type would function equivalently to uniquely identify a gambler at a betting position to the tracking system.

In view of *Mothwurf*, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the tracking system taught by the combination of *Schubert* with *Walsh, Helms* and *Fishbine* to add the feature of uniquely identifying a gambler to the tracking system using a magnetic card stripe reader to track when and where each gambler was located and thereby yielded more specific tracking data which may be used to the enhance the operator's security or business data.

Response to Arguments

Applicant's arguments with respect to claims 1, 4-9 and 17-20 have been considered but are moot in view of the new grounds of rejection.

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Applicant's arguments have been fully considered but they are not persuasive. In response the applicant's argument that the infrared camera systems disclosed by *Helms* would be ineffective for the current system, the argument is unpersuasive because only the reference's background is relied on to demonstrate that it is known to illuminate objects viewed by a camera.

Prior Art, Not Relied On

The following prior art of record is not relied upon but is considered pertinent to applicant's disclosure: U.S. Patent 5,451,054 (Sep. 19, 1995) to Orenstein discloses a gaming table having recessed cameras.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

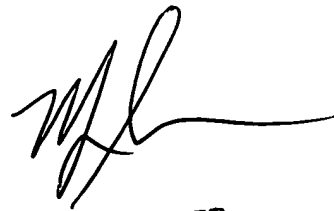
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven Ashburn whose telephone number is 703 305 3543. The examiner can normally be reached on Monday thru Friday, 8:00 AM to 4:30 PM. If attempts to reach the examiner by telephone are

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unsuccessful, the examiner's supervisor, Tom Hughes can be reached on 703-308-1806. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308 1148.

s.a.



MARK SAGER
PRIMARY EXAMINER